

# BRETT A. BUZZANGA

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Center for Coastal and Physical Oceanography, 4111 Monarch Way ◇ Norfolk, VA 23510

## EDUCATION

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### Old Dominion University

Doctor of Philosophy

*In progress*

### Old Dominion University

Master of Science

Overall GPA: 3.91/4.0

*August 2017*

### Brookdale College

A.S. in Science & Mathematics

Overall GPA: 3.98/4.0

*May 2013*

### Rutgers University

B.A in Political Science, Philosophy

Overall GPA: 3.55/4.0

*May 2011*

## EXPERIENCE

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### Old Dominion University

*Research Assistant*

Summer 2015 - Present

*Norfolk, VA*

*Present*

- Develop and test methods for better understanding regional sea level

*Summer 2017*

- Front and backend web development of Dr. Ben Hamlington's Ocean Remote Sensing Lab website

*Summer 2015 - Summer 2017*

- Backend web development of the Socioeconomic and Environmental Information Needs Knowledge Base

### NASA JPL

*Intern/Researcher*

Summer 2019

*Pasadena CA*

- Used Interferometric Synthetic Aperture Radar (InSAR) to measure coastal subsidence in Hampton Roads, Virginia
- Contributed to development and documentation of ARIA-tools (<https://github.com/aria-tools/ARIA-tools>) used for manipulating InSAR products

### Nathanial B. Palmer Cruise 16-01

*Research Assistant*

Jan 2016 - Feb 2016

*Palmer Station Antarctica LTER*

- Research assistant aboard a geochemical oceanographic research cruise
- Sediment core processing and on-ship chemical analyses

### NASA Develop

*Consultant/Intern*

Fall 2015

*Langley Air Force Base, VA*

- Created a land use/land cover classification of the Albemarle - Pamlico Sound Watershed
- Focused on wetland delineation for use in identifying trends in declining wetland health
- Used GIS and public remote sensing data (LANDSAT)

## Old Dominion University

*Teaching Assistant*

Aug 2014 - May 2016

Norfolk, VA

- Introduction to Oceanography (two semesters)
- Introduction to Global Climate Change (two semesters)
- Oceanography for Teachers (one semester)

## Kaplan Test Prep

*SAT Teacher/Tutor*

Jan 2013 - Present (Inactive)

New Jersey

- Taught SAT/ACT preparation classes and individually tutored high school students

## ReVireo

*Client Relations Manager*

May 2011 - May 2012

New Brunswick, NJ

- Managed and streamlined client relations in an energy efficiency certification startup
- Assisted in business development decisions

## TECHNICAL STRENGTHS

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### Github Profile

<https://github.com/bbuzz31>

### Computer Languages

Python, PHP

### Statistical Software

R, MATLAB

### GIS

ArcGIS, ArcPy, GDAL

### Hydrological Modeling

MODFLOW-2005 (USGS), SWMM (EPA)

### Development Frameworks

Python Django, Bootstrap

### General Tools

Shell scripting (bash, tcsh), Git/Github, HTML/CSS, L<sup>A</sup>T<sub>E</sub>X

## PUBLICATIONS

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- **Buzzanga, B.A.**, Bekaert, D.P.S, Hamlington, B.D, Sanga, S.S., 2019. Towards sustained monitoring of subsidence at the coast using InSAR and GNSS: An application in Hampton Roads, Virginia, *Remote Sensing of Environment*, In review.
- Bekaert, D.P.S, Hamlington, B.D., **Buzzanga, B.**, Jones, K., 2017. Spaceborne Synthetic Aperture Radar Survey of Subsidence in Hampton Roads, Virginia (USA), *Scientific Reports*, **7**(1), 14752.
- **Buzzanga, B.A**, Precipitation and sea level rise impacts on groundwater levels in Virginia Beach, Virginia, *Masters Thesis, Old Dominion University*

## PRESENTATIONS

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- **Buzzanga, B.A.**, Plag, H.P., 2017. Linking earth observations and models to societal information needs: The case of coastal flooding. Oral presentation at *Old Dominion University*, Norfolk, Virginia.
- **Buzzanga, B.A.**, 2016. Sea level rise impacts on precipitation-induced flooding. Poster presentation at the *American Geophysical Union, Fall Meeting*, San Francisco, California.
- **Buzzanga, B.A.**, Plag, H.P., 2016. Linking earth observations and models to societal information needs: The case of coastal flooding. Oral presentation at the *American Geophysical Union, Fall Meeting*, San Francisco, California.
- Roberts-Pierre, B., **Buzzanga, B.A.**, Pasco, M., Charlam, B., Patrick, J., 2015. Sensing the Sounds: An updated land use/landcover classification of the Albemarle and Pamlico Sounds. Oral presentation at *NASA Langley*, Langley Air Force Base, Hampton, VA.

## HONORS AND AWARDS

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- Student delegate for university forum on climate change moderated by Secretary of State John Kerry
- Dorothy Brown Smith Scholarship, \$1500.00